

COMPLETE LISTING OF THE CLAIMS

Claim 1 (original): A digital mixing system having a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the system comprising:

a console section including panel operating elements used to input parameters relating to the mixing process, a first input terminal, a first communication interface, and a first control device that generates a mixing control signal in response to operation of said panel operating elements or to a first control signal input via said first input terminal or said first communication interface, and outputs the mixing control signal to said first communication interface;

an engine section including a second input terminal, a second communication interface, a mixing processing device that executes the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal systems, and a second control device that controls the mixing process executed by said mixing processing device in response to the mixing control signal input via said second communication interface and outputs a second control signal input via said second input terminal to said second communication interface; and

communication lines connecting between said first communication interface and said second communication interface.

Claim 2 (original): A digital mixing system having a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the system comprising:

a console section including panel operating elements used to input parameters relating to the mixing process, a panel display device that displays contents of the mixing process, a first computer connection terminal, a first communication interface, and a first control device that updates the contents displayed by said panel display device and generates a mixing control signal, in response to operation of said panel operating elements or to a first control signal input via said first computer connection terminal or said first communication interface, and outputs the generated mixing control signal to said first communication interface;

an engine section including a second computer connection terminal, a second communication interface, a mixing processing device that executes the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal systems, and a second control device that controls the mixing process executed by said mixing processing device in response to the mixing control signal input via said second communication interface and outputs a second control signal input via said second computer connection terminal to said second communication interface; and

communication lines connecting between said first communication interface and said second communication interface.

Claim 3 (original): A digital mixing system according to claim 2, further comprising a first computer connected to said first computer connection terminal of said console section, said first computer generating the first control signal input via said first computer connection terminal, and a second computer connected to said second computer connection terminal of said engine section, said second computer generating the second control signal input via said second computer connection terminal.

Claim 4 (original): A digital mixing system according to claim 2, further comprising a computer connected to said first computer connection terminal of said console section, and wherein if a fault occurs in said console section, said computer generates and outputs the mixing control signal to said first computer connection terminal in place of said console section, and said console section outputs the mixing control signal input via said first computer connection terminal, to said first communication interface.

Claim 5 (original): A digital mixing system according to claim 2, further comprising a computer connected to said second computer connection terminal of said console section, and wherein if a fault occurs in said console section, said computer generates and outputs the mixing control signal to said second computer connection terminal in place of said console section, and said second control device of said engine section controls the mixing process executed by said mixing processing device in response to the mixing control signal input via said second computer connection terminal.

Claim 6 (original): A digital mixing system having a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the system comprising:

an engine section including a mixing processing device that executes the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal systems, and a computer connection interface; and

a supply device that is connected to said computer connection interface and supplies a mixing control signal for controlling the mixing process executed by said mixing processing device to said engine section.

Claim 7 (currently amended): ~~An engine apparatus constituting a part of a digital mixing system having a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the engine apparatus being connected to an external console apparatus via communication lines and comprising:~~

~~a computer connection terminal for connection to an external computer;~~

~~a communication interface for connection to the external console apparatus via the communication lines;~~

~~a mixing processing device that executes the mixing process of mixing the input signals from the plurality of input signal systems and outputting the mixed signals to the plurality of output signal systems;~~

A digital mixing system according to claim 1, wherein said engine section is connected to said console section via said communication lines, said engine section comprising,

wherein said second input terminal is a computer connection terminal for connecting to an external computer,

wherein said second communication interface is a communication interface for connection to said console section via said communication lines,

wherein said digital mixing system further comprises:

an abnormality detecting device that detects whether communication with ~~the external console apparatus~~ said console section via said communication interface is disabled; and

a control device as said second control device that controls the mixing process executed by said mixing processing device in response to a first mixing control signal input via said communication interface if said abnormality detecting device does not detect that the communication is disabled, and controls the mixing process executed by said mixing processing device in response to a second mixing control signal input via said computer connection terminal if said abnormality detecting device detects that the communication is disabled.

Claim 8 (currently amended): ~~An engine apparatus~~ A digital mixing system according to claim 7, wherein the external computer connected to said computer connection terminal generates the second mixing control signal input via said communication interface.

Claim 9 (currently amended): ~~A console apparatus constituting a part of a digital mixing system having a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the engine apparatus being connected to an external engine apparatus via communication lines and comprising:~~

~~a computer connection terminal for connection to an external computer;~~

~~a communication interface for connection to the external engine apparatus via the communication lines;~~

~~panel operating elements used to input parameters relating to the mixing process;~~

A digital mixing system according to claim 1, wherein said console section is connected to said engine section via said communication lines, wherein said first input terminal is a computer connection terminal for connection to an external computer, wherein said first communication interface is a communication interface for connection to said engine section via said communication lines, said digital mixing system further comprising:

a panel display device that displays contents of the mixing process;

a control device as said first control device that updates the contents displayed by said panel display device and generates a mixing control signal in response to operation of said panel

operating elements, and outputs the generated mixing control signal to said communication interface;

an abnormality detecting device that detects whether operation of said control device is abnormal; and

an operation switching device that outputs a first signal input via said computer connection terminal, to said communication interface, and outputs a second signal input via said communication interface, to said computer connection terminal, when said abnormality detecting device detects that the operation of said control device is abnormal.

Claim 10 (currently amended): A ~~console apparatus~~ digital mixing system according to claim 9, wherein the first signal is a mixing control signal that is similar to the mixing control signal generated by said control device, the first signal being generated by the computer connected to said computer connection terminal.

Claims 11-19 (canceled)

Claim 20 (original): A digital mixing system having a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the system comprising:

a console section including panel operating elements used to input parameters relating to the mixing process, and a first control device that outputs a mixing control signal in response to operation of said panel operating elements; and

an engine section connected to said console section and including a mixing processing device that executes the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal system as mixing signals and a monitor process of selectively outputting the signals being mixed by the mixing process, as monitor signals, and a second control device that controls the mixing process and the monitor process based on the mixing control signal output from said first control device;

wherein at least part of the mixing signals are reproduced by at least one stage speaker arranged close to said engine section, and the monitor signals are reproduced by at least one monitor speaker arranged close to said console section, and

wherein said panel operating elements of said console section include at least one operating element used to control a delay time for the monitor signals.

Claim 21 (original): A digital mixing system having a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the system comprising:

a console section including panel operating elements used to input parameters relating to the mixing process, and a first control device that outputs a mixing control signal in response to operation of said panel operating elements; and

an engine section connected to said console section and including a processing device that executes the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal system as mixing signals and a monitor process of selecting at least one of the signals being mixed by the mixing process and outputting the selected signal as a first monitor signal, and a second control device that controls the mixing process and the monitor process;

wherein at least part of the mixing signals are reproduced by at least one stage speaker arranged close to said engine section, and the first monitor signal is reproduced by at least one monitor speaker arranged close to said console section, and

wherein said engine section further comprises a communication signal system to which a voice signal close to said engine section is input; and

wherein the monitor process executed by said processing device of said engine section comprises reducing a level of said first monitor signal if a level of the voice signal input to the communication signal system exceeds a predetermined value, mixing the first monitor signal and

the voice signal input to said communication signal system, and outputting the mixed signal as a second monitor signal.

Claim 22 (original): A digital mixing method applied to a digital mixing system comprising a plurality of input signal systems, a plurality of output signal systems, a console section including panel operating elements used to input parameters relating to a mixing process, a first input terminal, and a first communication interface, an engine section including a second input terminal and a second communication interface, and communication lines connecting between said first communication interface and said second communication interface, wherein input signals from said plurality of input signal systems are subjected to the mixing process and the mixed signals are output to said plurality of output signal systems, the method comprising:

a mixing control signal generating step of causing said console section to generate a mixing control signal in response to operation of said panel operating elements and to a first control signal input via said first input terminal or said first communication interface;

a mixing control signal outputting step of causing said console section to output the generated mixing control signal to said first communication interface;

a mixing process execution step of causing said engine section to execute the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal systems;

a mixing process control step of causing said engine section to control the mixing process executed by said mixing process execution step in response to the mixing control signal input via said second communication interface; and

a second control signal outputting step of causing said engine section to output a second control signal input via said second input terminal, to said second communication interface.

Claim 23 (original): A digital mixing method applied to a digital mixing system comprising a plurality of input signal systems, a plurality of output signal systems, a console section including panel operating elements used to input parameters relating to a mixing process, a panel display device that displays contents of the mixing process, a first computer connection terminal, and a first communication interface, an engine section including a second computer connection terminal and a second communication interface, and communication lines connecting between said first communication interface and said second communication interface, wherein input signals from said plurality of input signal systems are subjected to the mixing process and the mixed signals are output to said plurality of output signal systems, the method comprising:

an updating and generating step of causing said console section to update the contents displayed by said panel display device and generate a mixing control signal in response to operation of said panel operating elements or to a first control signal input via said first computer connection terminal or said first communication interface;

a mixing control signal outputting step of causing said console section to output the generated mixing control signal to said first communication interface;

a mixing process execution step of causing said engine section to execute the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal systems;

a mixing process control step of causing said engine section to control the mixing process in said mixing process execution step in response to the mixing control signal input via said second communication interface; and

a second control signal outputting step of causing said engine section to output a second control signal input via said second computer connection terminal, to said second communication interface.

Claim 24 (original): A digital mixing method applied to a digital mixing system comprising a plurality of input signal systems, a plurality of output signal systems, an engine section including a computer connection interface, and a computer connected to said computer connection interface, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the method comprising:

a mixing processing step of causing said engine section to execute the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal systems; and

a mixing control signal supplying step of causing said computer to supply a mixing control signal for controlling the mixing process in said mixing processing step to said engine section.

Claim 25 (currently amended): ~~A control method for controlling an engine apparatus constituting a part of a digital mixing system comprising a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the engine apparatus being connected to an external console apparatus via communication lines and comprising a computer connection terminal for connection to an external computer, and a communication interface for connection to said external console apparatus via said communication lines, the method comprising:~~

~~a mixing processing step of executing the mixing process of mixing the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal systems;~~

A digital mixing method according to claim 22, wherein said engine section is connected to said console section via said communication lines and comprises a computer connection terminal as said second input terminal for connection to an external computer and a communication interface as said second communication interface for connection to said console section via said communication lines, said method further comprising the steps of:

an abnormality detecting step of detecting whether communication with said external console apparatus via said communication interface is disabled; and

a mixing process control step of controlling the mixing process in said mixing processing step in response to a first mixing control signal input via said communication interface if it is not detected in said abnormality detecting step that the communication is disabled, and controlling the mixing process in said mixing processing step in response to a second mixing control signal

input via said computer connection terminal if it is detected in said abnormality detecting step that the communication is disabled.

Claim 26 (currently amended): ~~A control method for controlling a console apparatus constituting a part of a digital mixing system comprising a plurality of input signal systems and a plurality of output signal systems, wherein input signals from said plurality of input signal systems are subjected to a mixing process and the mixed signals are output to said plurality of output signal systems, the console apparatus being connected to an external engine apparatus via communication lines and comprising a computer connection terminal for connection to an external computer, and a communication interface for connection to said external engine apparatus via said communication lines, panel operating elements used to input parameters for the mixing process, and a panel display device that displays contents of the mixing process, the method comprising:~~

A digital mixing method according to claim 22, wherein said console section is connected to said engine section via said communication lines and comprises a computer connection terminal as said first input terminal for connection to an external computer, a communication interface as said first communication interface for connection to said engine section via said communication lines, and a panel display device that displays contents of the mixing process, said method further comprising the steps of:

a control step of updating the contents displayed by said panel display device and generating a mixing control signal, in response to operation of said panel operating elements;

an output step of outputting the generated mixing control signal to said communication interface;

an abnormality detecting step of detecting whether operation of said control step or said output step is abnormal; and

an operation switching step of providing such control as to output a first signal input via said computer connection terminal, to said communication interface and output a second signal input via said communication interface, to said computer connection terminal, when it is detected in said abnormality detecting step that the operation is abnormal.

Claims 27-29 (canceled)

Claims 30 (original): A digital mixing method applied to a digital mixing system comprising a plurality of input signal systems and a plurality of output signal systems, a console section including panel operating elements used to input parameters relating to a mixing process, and an engine section connected to said console section, wherein input signals from said plurality of input signal systems are subjected to the mixing process and the mixed signals are output to said plurality of output signal systems, the method comprising:

a first control step of causing said console section to output a mixing control signal in response to operation of said panel operating elements;

a mixing processing step of causing said engine section to mix the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal system as mixing signals, at least part of the mixing signals being reproduced by at least one stage speaker arranged close to said engine section;

a monitor processing step of causing said engine section to execute a monitor process of selectively outputting the signals being mixed by the mixing process, as monitor signals, the

monitor signals being reproduced by at least one monitor speaker arranged close to said console section;

a second control step of causing said engine section to control said mixing processing step and said monitor processing step based on the mixing control signal output from said first control step; and

a delay time control step of causing said console section to cause a delay time for the monitor signals using a part of said panel operating elements.

Claim 31 (original): A digital mixing method applied to a digital mixing system comprising a plurality of input signal systems and a plurality of output signal systems, a console section including panel operating elements used to input parameters relating to a mixing process, and an engine section connected to said console section, wherein input signals from said plurality of input signal systems are subjected to the mixing process and the mixed signals are output to said plurality of output signal systems, the method comprising:

a first control step of causing said console section to output a mixing control signal in response to operation of said panel operating elements;

a mixing processing step of causing said engine section to mix the input signals from said plurality of input signal systems and outputting the mixed signals to said plurality of output signal system as mixing signals, at least part of the mixing signals being reproduced by at least one stage speaker arranged close to said engine section;

a monitor processing step of causing said engine section to select at least one of the signals being mixed by the mixing process, and output the selected signal as a first monitor

signal, the first monitor signal being reproduced by at least one monitor speaker arranged close to said console section;

a second control step of causing said engine section to control said mixing processing step and said monitor processing step based on the mixing control signal output in said first control step;

a communication signal input step of causing said engine section to input a voice signal in a vicinity of said engine section;

a signal output step of causing said engine section to reduce a level of the first monitor signal, mix the first monitor signal and the voice signal input in said communication signal input step and output the mixed signal as a second monitor signal, when a level of the voice signal input in said communication signal input step exceeds a predetermined value.

Claim 32 (currently amended): A program for executing the digital mixing method ~~control method for controlling the engine apparatus~~ according to claim 25.

Claim 33 (currently amended): A program for executing the digital mixing method ~~control method for controlling the console apparatus~~ according to claim 26.